# DAIKOWM AlSi12

GMAW

**ALUMINIUM ALLOYS**
AlSi

## DESCRIPTION

**Solid wire for welding various Al-Si alloys**

Widely used thanks to its excellent aesthetic characteristics and smoothness. The high Si content increases fluidity and reduces sensitivity to weld cracking and generates higher shear strength in fillet welding. Applications include general purpose constructions, components for the automotive industry, heat exchangers, body panels, brazing of aluminum sheets, profiles and casting. It's characterized by bright and almost smut free welding but not suitable for post weld anodizing.

## SPECIFICATIONS

| | | | |
|---|---|---|---|
| **ISO 18273** | S Al4047 A | **AWS A5.10** | ER4047 |
| **Werkstoff Number** | 3.2585 | **Certifications** | CE |
| **Shielding** | I1 | **Positions** | PA, PB, PC, PD, PE, PF, PG |
| **Current** | DC+ | **Packaging Type** | Drums, B300, D200 and D100 spools. |

## ASME QUALIFICATIONS

| | |
|---|---|
| F-No (QW432) | 23 |
| A-No (QW442) | - |

## FERRITE

-

## PREN

-

## HARDNESS

-

## CHEM. COMP. %

| | DEFAULT |
|---|---|
| Mn | 0.05 |
| Si | 11.7 |
| Cu | 0.006 |
| Fe | 0.13 |
| Ti | 0.02 |
| Zn | 0.01 |
| Mg | 0.006 |

## MECHANICAL PROPERTIES

| | MIN | VARIANT |
|---|---|---|
| Tensile strength $R_m$ MPa | - | 125 |
| Yield strength $R_{p0.2}$ MPa | 0 | 70 |
| Elongation A ($L_0$=5$d_0$) % | 0 | 5 |
| Impact Charpy ISO-V | - | - |
| Impact Charpy ISO-V | - | - |

## WELDING PARAMETERS

| | 1.2 mm | 1.6 mm |
|---|---|---|
| Ampere | 110A - 130A | 200A - 300A |
| Voltage | 19V - 23V | 22V - 26V |
| Packaging | Ø 0,8÷1,6mm | Ø 0,8÷1,6mm |
| Packaging Type | Drums, B300, D200 and D100 spools. | Drums, B300, D200 and D100 spools. |

# AlSi

DESCRIPTION



## APPLICATION

Widely utilized alloys, known for excellent aesthetic characteristics and smoothness, these alloys exhibit low sensitivity to weld cracking when paired with 6000 series base alloys. Their lower melting point and increased fluidity (due to Silicon content) result in better weld appearance compared to 5000 series filler alloys. However, the weld metal is not suitable for decorative anodizing. Applications span general constructions and the automotive industry, offering good mechanical properties and excellent corrosion resistance. The low melting point minimizes deformations in the parent metal, and the higher silicon content enhances fluidity while reducing the risk of hot cracking. This alloy is commonly employed for brazing aluminum sheets, extrusions, casting, and applications involving sustained elevated temperatures

## ALLOY TYPE

Consumables for welding aluminum alloys alloyed with Mg and Si.

## MICROSTRUCTURE

Face-centered cubic lattice.

## MATERIALS

The alloy is suitable for sustained elevated temperature applications (> 65 °C). The alloy is designed for welding heat treatable base alloys.

**EN W.Nr.**:

**DAIKOW AlSi5, G-TECH 605:**: EN AW-Al Si5A (4043A), EN AW-Al Mg1SiCu (6061), EN AW-Al SiMg(A) (6005A), EN AW-Al Zn4,5Mg1 (7020), EN AW-Al MgSi (6060), AlMgSi0,5, AlMgSi0,7, AlMgSi0,8, EN AW-Al Si1MgMn (6082)

**DAIKOW AlSi12, G-TECH 601:**: AlMgSi1, AlMgSi0,8, G-AlSi12, G-AlSi11, G-CuAlSi12(Cu), G-AlSi10Mg, G-AlSi10Mg(Cu), G-AlSi9Mg, G-AlSi9Cu3, G-AlSi7Mg, GAlSi6Cu4)

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